April 24, 2001

Mr. Douglas Conley
HomeCrest Corporation
P.O. Box 595
Goshen, Indiana 46527

Re: 039-13961-00014
Minor Source Modification to:
Part 70 permit No.: T039-6029-00014

Dear Mr. Conley:

HomeCrest Corporation was issued Part 70 operating permit T039-13961-00014 on December 22, 1998 for a wood furniture manufacturing process. An application to modify the source was received on February 23, 2001. Pursuant to 326 IAC 2-7-10.5 the following emission units are approved for construction at the source:

(a) One (1) automated stain line, identified as EU27, with a maximum capacity of coating 2000 units per hour utilizing a high volume low pressure spray application, using dry filters for particulate matter control, and exhausting to stacks S41 and S42.

(b) Two (2) automated varnish lines, identified as EU28 and EU29, each with a maximum capacity of coating 2000 units per hour utilizing an airless spray application, using wet scrubbers for particulate matter control, and exhausting to stacks S43 - S47 and S48 - S52, respectively.

(c) Millwork Woodworking equipment to replace existing woodworking operations, equipped with three (3) baghouses identified as EU15, EU16 and EU26 for particulate control, and exhausting to stacks S30, S31 and S40, respectively.

The following construction conditions are applicable to the proposed project:

General Construction Conditions

1. The data and information supplied with the application shall be considered part of this source modification approval. Prior to any proposed change in construction which may affect the potential to emit (PTE) of the proposed project, the change must be approved by the Office of Air Quality (OAQ).

2. This approval to construct does not relieve the permittee of the responsibility to comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder, as well as other applicable local, state, and federal requirements.

3. Effective Date of the Permit
Pursuant to IC 13-15-5-3, this approval becomes effective upon its issuance.

4. Pursuant to 326 IAC 2-1.1-9 and 326 IAC 2-7-10.5(i), the Commissioner may revoke this approval if construction is not commenced within eighteen (18) months after receipt of this approval or if construction is suspended for a continuous period of one (1) year or more.

5. All requirements and conditions of this construction approval shall remain in effect unless modified in a manner consistent with procedures established pursuant to 326 IAC 2.

6. Pursuant to 326 IAC 2-7-10.5(l) the emission units constructed under this approval shall not be placed into operation prior to revision of the source's Part 70 Operating Permit to incorporate the required operation conditions.

7. The Affidavit of Construction shall be submitted to the Office of Air Quality (OAQ), Permit Administration & Development Section.

The proposed operating conditions applicable to these emission units are attached to this Source Modification approval. These proposed operating conditions shall be incorporated into the Part 70 operating permit as significant permit modification in accordance with 326 IAC 2-7-12. The source may begin operation after the significant permit modification to the Part 70 Operating Permit is issued.

This decision is subject to the Indiana Administrative Orders and Procedures Act - IC 4-21.5-3-5. If you have any questions on this matter please contact Linda Quigley, c/o OAQ, 100 North Senate Avenue, P.O. Box 6015, Indianapolis, Indiana, 46206-6015, or call (973) 575-2555, ext. 3284 or dial (800) 451-6027, press 0 and ask for 3-6878.

Sincerely,

Original Signed by Paul Dubenetzky
Paul Dubenetzky, Chief
Permits Branch
Office of Air Quality

Attachments
LQ/EVP
cc: File - Elkhart County
U.S. EPA, Region V
Elkhart County Health Department
Northern Regional Office
Air Compliance Section Inspector - Paul Karkiewicz
Compliance Data Section - Karen Nowak
Administrative and Development - Janet Mobley
Technical Support and Modeling - Michelle Boner

A. SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ). The information describing the source contained in conditions A.1 through A.3 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

A.1 General Information [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)]

The Permittee owns and operates a wood furniture manufacturing plant.

Responsible Official:	Doug Conley
Source Address:	1002 Eisenhower Drive North, Goshen, IN 46526
Mailing Address:	P.O. Box 595, Goshen, IN 46527
SIC Code:	2434
County Location:	Elkhart
County Status:	Attainment for all criteria pollutants
Source Status:	Part 70 Permit Program Minor Source, under PSD Rules Major Source, Section 112 of the Clean Air Act

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)] [326 IAC 2-7-5(15)]

This stationary source consists of the following emission units and pollution control devices:

(a) One (1) natural gas or wood fired boiler EU 1, with a maximum rating of 17 MMBtu (million British thermal units) per hour. Emissions shall be controlled by a cyclone, then exhausted at Stack ID #S1;

(b) Millwork Woodworking equipment equipped with three (3) baghouses identified as EU15, EU16 and EU26 for particulate control, and exhausting to stacks S30, S31 and S40, respectively;

(c) One (1) solid waste natural gas fired incinerator EU 2, with a maximum rating of 250 pounds per hour. Emissions shall be exhausted at Stack ID #S2;

(d) Thirteen (13) Spray booths EU 3 - EU 12, EU 27, EU 28 and EU 29, consisting of the following:

(1) One (1) custom research and development paint booth EU 3, with a maximum rating of 3 units per hour. Emissions shall be controlled by dry filters, then exhausted at Stack ID #S3;

(2) One (1) hanging line toner booth EU 4, with a maximum rating of 600 units per hour. Emissions shall be controlled by dry filters, then exhausted at Stacks ID #S4 - S7;

(3) One (1) hanging line sealer booth EU 5, with a maximum rating of 600 units per hour. Emissions shall be controlled by dry filters, then exhausted at Stacks ID #S8 - S9;

(4) One (1) hanging line topcoat booth EU 6, with a maximum rating of 600 units per hour. Emissions shall be controlled by dry filters, then exhausted at Stacks ID #S10 - S11;

(5) One (1) flat line toner booth EU 7, with a maximum rating of 960 units per hour. Emissions shall be controlled by dry filters, then exhausted at Stacks ID #S12 - S15;

(6) One (1) flat line sealer booth EU 8, with a maximum rating of 960 units per hour. Emissions shall be controlled by dry filters, then exhausted at Stacks ID #S16 - S17;

(7) One (1) flat line topcoat booth EU 9, with a maximum rating of 960 units per hour. Emissions shall be controlled by dry filters, then exhausted at Stacks ID #S18 - S20;

(8) One (1) flat line repair booth EU 10, with a maximum rating of 180 units per hour. Emissions shall be controlled by dry filters, then exhausted at Stack ID #S21;

(9) One (1) parts booth EU 11, with a maximum rating of 180 units per hour. Emissions shall be controlled by dry filters, then exhausted at Stacks ID #S22-S24;

(10) One (1) hanging line repair booth EU 12, with a maximum rating of 180 units per hour. Emissions shall be controlled by dry filters, then exhausted at Stack ID #S25;

(11) One (1) automated stain line, identified as EU 27 with a maximum capacity of coating 2000 units per hour utilizing a high volume low pressure spray application, using dry filters for particulate matter control, and exhausting to stacks S 41 and S 42;

(12) Two (2) automated varnish lines, identified as EU 28 and EU 29, each with a maximum capacity of coating 2000 units per hour utilizing an airless spray application, using wet scrubbers for particulate matter control, and exhausting to stacks S 43 - S 47 and S 48 - S 52, respectively.

A.3 Specifically Regulated Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)]

This stationary source also includes the following insignificant activities which are specifically regulated, as defined in 326 IAC 2-7-1(21):

(a) Natural gas-fired combustion sources with heat input equal to or less than ten (10) million Btu per hour:

(1) one (1) natural gas fired boiler, identified as EU30, rated at 3.0 MMBtu per hour and exhausting through one (1) stack identified as S53.

(b) The following equipment related to manufacturing activities not resulting in the emission of HAPs; brazing equipment, cutting torches, soldering equipment, welding equipment.

(c) Grinding and machining operations controlled with fabric filters, scrubbers, mist collectors, wet collectors and electrostatic precipitators with a design grain loading of less than or equal to 0.03 grains per actual cubic foot and a gas flow rate less than or equal to 4000 actual cubic feet per minute, including the following: deburring; buffing; polishing; abrasive blasting; pneumatic conveying; woodworking operations and Dust collection Emission Unit number 25.

A.4 Part 70 Permit Applicability [326 IAC 2-7-2]

This stationary source is required to have a Part 70 permit by 326 IAC 2-7-2 (Applicability) because:

(a) It is a major source, as defined in 326 IAC 2-7-1(22).

(b) It is a source in a source category designated by the United States Environmental Protection Agency (U.S. EPA) under 40 CFR 70.3 (Part 70 - Applicability).

D.1 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]
(1) one natural gas or wood fired boiler EU 1, with a maximum rating of 17 MMBtu per hour. Emissions shall be controlled by cyclone, then exhausted at Stack/Vent ID #S1.

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.1.1 PSD Minor Limit [326 IAC 2-2] [40 CFR 52.21]

The entire source shall be limited to less than 250 tons of PM and PM10 emissions per twelve consecutive month period. This limitation includes equipment listed in sections D.1 through D.5.

Compliance with this limit shall make 326 IAC 2-2 (Prevention of Significant Deterioration) not applicable.

D.1.2 Particulate Matter (PM) [326 IAC 6-2-3]

Pursuant to 326 IAC 6-2-3 (Particulate emission limitations for sources of indirect heating), the particulate matter emissions from the 17 MMBtu per hour natural gas or wood fired boiler shall be limited to 0.8 pounds per MMBtu.

D.1.3 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for this facility.

Compliance Determination Requirements

D.1.4 Testing Requirements [326 IAC 2-7-6(1), (6)]

The Permittee is not required to test this facility by this permit. However, IDEM may require compliance testing at any specific time when necessary to determine if the facility is in compliance. If testing is required by IDEM, compliance with the PM and PM10 limits specified in Conditions D.1.1 and D.1.2 shall be determined by a performance test conducted in accordance with Section C - Performance Testing.

Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

D.1.5 Visible Emissions Notations

(a) Daily visible emission notations of the 17 MMBtu per hour boiler cyclone stack exhaust shall be performed during normal daylight operations when wood is combusted in the boiler. A trained employee shall record whether emissions are normal or abnormal.

(b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.

(c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.

(d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

(e) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed.

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.1.6 Record Keeping Requirements

(a) To document compliance with Condition D.1.5, the Permittee shall maintain records of daily visible emission notations of the 17 MMBtu per hour boiler cyclone stack exhaust whenever wood is burned.

(b) To document compliance with Condition D.1.1, the Permittee shall maintain records of fuel usage and calculate emissions using AP 42 emission factors or other emission factors approved by IDEM, OAQ.

D.1.7 Reporting Requirements

A quarterly summary of the information to document compliance with Condition D.1.1 shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the “responsible official” as defined by 326 IAC 2-7-1(34).

Section D.2 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]
Millwork Woodworking equipment equipped with three (3) baghouses identified as EU15, EU16 and EU26 for particulate control, and exhausting to stacks S30, S31 and S40, respectively.
(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.2.1 PSD Minor Limit [326 IAC 2-2] [40 CFR 52.21]

The entire source shall be limited to less than 250 tons of PM and PM10 emissions per twelve consecutive month period. This limitation includes equipment listed in sections D.1 through D.5.

Compliance with this limit shall make 326 IAC 2-2 (Prevention of Significant Deterioration) not applicable.

D.2.2 Particulate Matter (PM) [326 IAC 6-3-2(c)]

Pursuant to 326 IAC 6-3-2(c) (Process Operations), the allowable PM emission rate from the woodworking facilities shall not exceed 26.8 pounds per hour when operating at a process weight rate of 33,000 pounds per hour.

The pounds per hour limitation was calculated with the following equation:

Interpolation and extrapolation of the data for the process weight rate up to 60,000 pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour; and P = process weight rate in tons per hour

D.2.3 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for this facility and its control device.

Compliance Determination Requirements

D.2.4 Testing Requirements [326 IAC 2-7-6(1), (6)]

The Permittee is not required to test these facilities by this permit. However, IDEM may require compliance testing at any specific time when necessary to determine if the facility is in compliance. If testing is required by IDEM, compliance with the PM and PM10 limits specified in Conditions D.2.1 and D.2.2 shall be determined by a performance test conducted in accordance with Section C - Performance Testing.

D.2.5 Particulate Matter (PM)

The baghouses for PM control shall be in operation at all times when the woodworking machinery is in operation.

Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

D.2.6 Visible Emissions Notations

(a) Daily visible emission notations of the woodworking baghouse stacks exhaust shall be performed during normal daylight operations when vented to the outside atmosphere. A trained employee shall record whether emissions are normal or abnormal.

(b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.

(c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.

(d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

(e) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed.

D.2.7 Baghouse Inspections

An inspection shall be performed each calendar quarter of all bags controlling the woodworking operation when venting to the atmosphere. A baghouse inspection shall be performed within three months of redirecting vents to the atmosphere and every three months thereafter. Inspections are optional when venting indoors. All defective bags shall be replaced.

D.2.8 Broken or Failed Bag Detection

In the event that bag failure has been observed.

(a) The affected compartments will be shut down immediately until the failed units have been repaired or replaced. Within eight (8) hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) hours of discovery of the failure and shall include a timetable for completion. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

(b) For single compartment baghouses, failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

Record Keeping [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.2.9 Record Keeping Requirements

(a) To document compliance with Conditions D.2.5 and D.2.6, the Permittee shall maintain records of daily visible emission notations of the woodworking baghouse stacks exhaust.

(b) To document compliance with Condition D.2.7, the Permittee shall maintain records of the results of the inspections required under Condition D.2.7 and the dates the vents are redirected.

(c) To document compliance with Condition D.2.1, the Permittee shall maintain records of PM and PM10 emissions.

(d) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.2.10 Reporting Requirements

A quarterly summary of the information to document compliance with Condition D.2.1 shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the “responsible official” as defined by 326 IAC 2-7-1(34).

D.3 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]
One (1) solid waste natural gas fired incinerator EU 2, with a maximum rating of 250 pounds per hour and exhausted at Stack/Vent ID #S2.

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.3.1 PSD Minor Limit [326 IAC 2-2] [40 CFR 52.21]

(a) The entire source shall be limited to less than 250 tons of PM and PM10 emissions per twelve consecutive month period. This limitation includes equipment listed in sections D.1 through D.5.

(b) The entire source shall be limited to less than 250 tons of VOC, including coatings, dilution solvents, and cleaning solvents, per 12 consecutive month period. This limitation includes equipment listed in sections D.3 and D.4.

(c) Compliance with limits in D.3.1(a) and D.3.1(b) shall make 326 IAC 2-2 (Prevention of Significant Deterioration) not applicable.

D.3.2 Solid Waste Incinerator [326 IAC 4-2-2]

Pursuant to 326 IAC 4-2-2 (Incinerators), this solid waste natural gas incinerator, rated at 250 pounds per hour shall:

(a) Consist of primary and secondary chambers or the equivalent.
(b) Be equipped with a primary burner unless burning wood products.
(c) Comply with 326 IAC 5-1 (Opacity limitations).
(d) Be maintained properly as specified by the manufacturer and approved by IDEM.
(e) Be operated according to the manufacturer's recommendation and only burn waste approved by IDEM.
(f) Comply with other state and/or local rules or ordinances regarding installation and operation of incinerators.
(g) Be operated so that emissions of hazardous material including, but not limited to, viable pathogenic bacteria, dangerous chemical or gases, or noxious odors are prevented.
(h) Not create a nuisance or a fire hazardous.
(i) Not emit particulate matter (PM) in excess of 0.3 pounds per 1000 pounds of dry exhaust gas corrected to fifty percent (50%) excess air.

The operation of this incinerator shall be terminated immediately upon noncompliance with any of the above mentioned requirements.

D.3.3 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for this facility.

Compliance Determination Requirements

D.3.4 Testing Requirements [326 IAC 2-7-6(1), (6)]

The Permittee is not required to test this facility by this permit. However, IDEM may require compliance testing at any specific time when necessary to determine if the facility is in compliance. If testing is required by IDEM, compliance with the PM and PM10 limits specified in Conditions D.3.1 and D.3.2 shall be determined by a performance test conducted in accordance with Section C - Performance Testing.

Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

D.3.5 Visible Emissions Notations

(a) Daily visible emission notations of the incinerator stack exhaust shall be performed during normal daylight operations whenever the incinerator is in operation. A trained employee shall record whether emissions are normal or abnormal.

(b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.

(c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.

(d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

(e) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed.

Record Keeping [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.3.6 Record Keeping Requirements

(a) To document compliance with Condition D.3.5 the Permittee shall maintain records of daily visible emission notations of the incinerator stack exhaust.

(b) To document compliance with Condition D.3.1(a) and D.3.1(b), the Permittee shall maintain records of PM, PM10 and VOC emissions.

D.3.7 Reporting Requirements

A quarterly summary of the information to document compliance with Condition D.1.1 shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the “responsible official” as defined by 326 IAC 2-7-1(34).

SECTION D.4 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]
Thirteen (13) surface coating booths, identified as units EU 3, EU 4, EU 5, EU 6, EU 7, EU 8, EU 9, EU 10, EU 11, EU 12, EU27, EU28 and EU29, with dry filters for control. Unit EU-3 exhausts to Stack ID# S3; Unit EU 4 exhausts to Stacks ID# S4 - S7; Unit EU 5 exhausts to Stacks ID# S8 and S9; Unit EU 6 exhausts to Stacks ID# S10 and S11; Unit EU 7 exhausts to Stacks ID# S12 - S15; Unit EU 8 exhausts to Stacks ID# S16 and S17; Unit EU 9 exhausts to Stacks ID# S18-S20; Unit EU 10 exhausts to Stack ID# 21; Unit EU 11 exhausts to Stacks ID# S22 - S24; Unit EU 12 exhausts to Stack ID# S25; Unit EU 27 exhausts to Stacks ID# S41 - S42; Unit EU 28 exhausts to Stacks ID# S43 - S47; Unit EU 29 exhausts to Stacks ID# S48 - S52.
(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.4.1 PSD Minor Limit [326 IAC 2-2] [40 CFR 52.21]

(a) The entire source shall be limited to less than 250 tons of PM and PM10 emissions per twelve consecutive month period. This limitation includes equipment listed in sections D.1 through D.5.

(b) The entire source shall be limited to less than 250 tons of VOC, including coatings, dilution solvents, and cleaning solvents, per 12 consecutive month period. This limitation includes equipment listed in sections D.3 and D.4.

(c) Compliance with limits in D.4.1(a) and D.4.1(b) make 326 IAC 2-2 (Prevention of Significant Deterioration) not applicable.

D.4.2 Particulate Matter (PM) [326 IAC 6-3-2(c)]

Pursuant to 326 IAC 6-3-2(c) (Process Operations), the PM from each of the thirteen (13) surface coating booths (EU 3 through EU 12, EU 27, EU 28 and EU 29) shall not exceed the pound per hour emission rate established as E in the following formula:

Interpolation and extrapolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour; and P = process weight rate in tons per hour

D.4.3 Volatile Organic Compounds (VOC) [326 IAC 8-2-12]

Pursuant to 326 IAC 8-2-12 (Wood Furniture and Cabinet Coating), with the exception of no more than ten (10) gallons of coating per day used for touch-up and repair operations, the surface coating applied to wood furniture and cabinets shall utilize one of the following application methods:

Airless Spray Application
Air Assisted Airless Spray Application
Electrostatic Spray Application
Electrostatic Bell or Disc Application
Heated Airless Spray Application
Roller Coating
Brush or Wipe Application
Dip-and Drain Application

High Volume Low Pressure (HVLP) Spray Application is an accepted alternative method of application for Air Assisted Airless Spray Application. HVLP spray is the technology used to apply coating to substrate by means of coating application equipment which operates between one-tenth (0.1) and ten (10) pound per square inch gauge (psig) air pressure measured dynamically at the center of the air cap and at the air horns of the spray system.

D.4.4 Wood Furniture NESHAP [40 CFR 63, Subpart JJ]

(a) The wood furniture coating operation is subject to the National Emission Standards for Hazardous Air Pollutants (NESHAP), 326 IAC 20-14, (40 CFR 63, Subpart JJ), with a compliance date of November 21, 1997.

(b) Pursuant to 40 CFR 63, Subpart JJ, the wood furniture coating operations shall comply with the following conditions:

(1) Limit the volatile hazardous air pollutant (VHAP) emissions from finishing operations as follows:

(A) Achieve a weighted average VHAP content across all coatings of 1.0 pound VHAP per pound solids; or

(B) Use compliant finishing materials in which all stains, washcoats, sealers, topcoats, basecoats and enamels have a maximum VHAP content of 1.0 pound VHAP per pound solid, as applied. Thinners used for on-site formulation of washcoats, basecoats, and enamels have a 3.0 percent maximum VHAP content by weight. All other thinners have a 10.0 percent maximum VHAP content by weight; or

(C) Use a control device to limit emissions; or

(D) Use a combination of (A), (B), and (C).

(2) Limit VHAP emissions contact adhesives as follows:

(A) For foam adhesives used in products that meet the upholstered seating flammability requirements, the VHAP content shall not exceed 1.8 pounds VHAP per pound solids.

(B) For all other contact adhesives (except aerosols and contact adhesives applied to nonporous substrates) the VHAP content shall not exceed 1.0 pound VHAP per pound solid.

(C) Use a control device to limit emissions.

(3) The strippable spray booth material shall have a maximum VOC content of 0.8 pounds VOC per pound solids.

D.4.5 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for this facility and its control device.

D.4.6 Work Practice Standards [40 CFR 63.803]

The owner or operator of an affected source subject to this subpart shall prepare and maintain a written work practice implementation plan within sixty (60) calendar days after the compliance date. The work practice implementation plan must define environmentally desirable work practices for each wood furniture manufacturing operation and at a minimum address each of the following work practice standards as defined under 40 CFR 63.803:

(a) Operator training course.
(b) Leak inspection and maintenance plan.
(c) Cleaning and washoff solvent accounting system.
(d) Chemical composition of cleaning and washoff solvents.
(e) Spray booth cleaning.
(f) Storage requirements.
(g) Conventional air spray guns shall only be used under the circumstances defined under 40 CFR 63.803(h).
(h) Line Cleaning.
(i) Gun Cleaning.
(j) Washoff operations.
(k) Formulation assessment plan for finishing operations.

Compliance Determination Requirements

D.4.7 Testing Requirements [326 IAC 2-7-6(1), (6)] [40 CFR 63, Subpart JJ]

(a) Pursuant to 40 CFR 63, subpart JJ, if the Permittee elects to demonstrate compliance using 63.804(a)(3) or 63.804(c)(2) or 63.804(d)(3) or 63.804(e)(2), performance testing must be conducted in accordance with 40 CFR 63, subpart JJ and 326 IAC 3-6.

(b) During the period between 18 and 24 months after issuance of this permit, in order to verify the dry filters and wet scrubbers control efficiencies, the Permittee shall perform PM and PM-10 testing on dry filters for one (1) of the eleven (11) surface coating booths controlled by dry filters for one (1) of the two (2) surface coating booths controlled by wet scrubber utilizing methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. PM-10 includes filterable and condensible PM-10. Testing shall be conducted in accordance with Section C- Performance Testing.

D.4.8 Volatile Organic Compounds (VOC)

(a) Compliance with VOC content limitations contained in Condition D.4.4 shall be determined pursuant to 326 IAC 8-1-4(a)(3) and 326 IAC 8-1-2(a), using formulation data supplied by the coating manufacturer. The OAQ reserves the authority to determine compliance using Method 24 in conjunction with the analytical procedure specified in 326 IAC 8-1-4.

(b) Compliance with Condition D.4.1(b) shall be demonstrated within 30 days of the end of each month based on the total volatile organic compound usage for the twelve (12) month period.

D.4.9 Particulate Matter (PM)

Compliance with Condition D.4.1(a) shall be demonstrated within 30 days of the end of each month based on the material usage and solid content of the material, the transfer efficiency of the application methods, and control efficiency of the dry filters for the twelve (12) month period. PM and PM10 emissions from surface coating shall be calculated using the following equation:

material usage * solid content * (1-transfer efficiency) * (1- control efficiency)

A transfer efficiency of 75% shall be used for airless or HVLP coating application.
A minimum control efficiency of 94% or the control efficiency determined in the stack testing shall be used for the control efficiency of the dry filters or wet scrubbers.

Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

D.4.10 Particulate Matter (PM)

The dry filters and wet scrubbers for PM over spray control shall be in operation at all times when the thirteen (13) surface coating booths are in operation.

D.4.11 Monitoring

(a) Daily inspections shall be performed to verify the placement, integrity and particle loading of the filters. To monitor the performance of the dry filters, weekly observations shall be made of the overspray from the surface coating booth stacks, while one or more of the booths are in operation. The Compliance Response Plan shall be followed whenever a condition exists which should result in a response step. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.

(b) Monthly inspections shall be performed of the coating emissions from the stack and the presence of overspray on the rooftops and the nearby ground. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when a noticeable change in overspray emission, or evidence of overspray emission is observed. The Compliance Response Plan shall be followed whenever a condition exists which should result in a response step. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.

(c) Additional inspections and preventive measures shall be performed as prescribed in the Preventive Maintenance Plan.

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.4.12 Record Keeping Requirements

(a) To document compliance with Condition D.4.4 the Permittee shall maintain records in accordance with (1) through (5) below. Records maintained for (1) through (5) shall be complete and sufficient to establish compliance with the VHAP usage limits established in Condition D.4.4.

(1) Certified Product Data Sheet for each finishing material, thinner, contact adhesive and strippable booth coating.

(2) The VHAP content in pounds of VHAP per pounds of solids, as applied, for all finishing materials and contact adhesives used.

(3) The VOC content in pounds of VOC per pounds of solids, as applied, for each strippable coating used.

(4) The VHAP content in weight percent of each thinner used.

(5) When the averaging compliance method is used, copies of the averaging calculations for each month as well as the data on the quantity of coating and thinners used to calculate the average.

(b) To document compliance with Condition D.4.1(a), the Permittee shall maintain records in accordance with (1) through (5) below. Records maintained for (1) through (5) shall be taken monthly and shall be complete and sufficient to establish compliance with the PM and PM10 emission limits established in Condition D.4.1(b).

(1) The amount and solid content of each coating material used. Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used;

(2) A log of the dates of use;

(3) The total material usage for each month; and

(4) Calculated particulate matter emission for each month using the formula listed in Condition D.4.9.

(c) To document compliance with Condition D.4.1(b), the Permittee shall maintain records in accordance with (1) through (5) below. Records maintained for (1) through (5) shall be taken monthly and shall be complete and sufficient to establish compliance with the VOC usage limits and/or the VOC emission limits established in Condition D.4.1(b).

(1) The amount and VOC content of each coating material and solvent used. Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used. Solvent usage records shall differentiate between those added to coatings and those used as cleanup solvents;

(2) A log of the dates of use;

(3) The cleanup solvent usage for each month;

(4) The total VOC usage for each month; and

(5) The weight of VOCs emitted for each compliance period.

(d) To document compliance with Condition D.4.6, the Permittee shall maintain records demonstrating actions have been taken to fulfill the Work Practice Implementation Plan.

(e) To document compliance with Conditions D.4.10 and D.4.11, the Permittee shall maintain a log of weekly over spray observations, daily and monthly inspections and those additional inspections prescribed by the Preventive Maintenance Plan.

(f) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.4.13 Reporting Requirements

(a) An Initial Compliance Report to document compliance with Condition D.4.4, and the Certification form, shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, within sixty (60) calendar days after the start up of the proposed units (EU27, EU28 and EU29). The initial compliance report must include data from the entire month that the compliance date falls.

(b) A semi-annual Continuous Compliance Report to document compliance with Condition D.4.4, and the Certification form, shall be submitted to the address listed in Section C - General Reporting Requirements of this permit, within thirty (30) days after the end of the six (6) months being reported.

(c) The semi-annual Continuous Compliance Report shall be submitted on a calendar year basis with the reporting periods ending June 30 and December 31.

(d) A quarterly summary of the information to document compliance with Condition D.4.1(a) and D.4.1(b) shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(e) The reports required in (a), (b) and (c) of this condition shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

and

United States Environmental Protection Agency, Region V
Air and Radiation Division, Air Enforcement Branch - Indiana (AE-17J)
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

SECTION D.5 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description - Insignificant Activity
One (1) natural gas-fired boiler, identified as EU30, with a heat input capacity of 3.0 million Btu per hour (MMBtu), and exhausting to stack S53.
(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards

D.5.1 PSD Minor Limit [326 IAC 2-2] [40 CFR 52.21]

The entire source shall be limited to less than 250 tons of PM and PM10 emissions per twelve consecutive month period. This limitation includes equipment listed in sections D.1 through D.5.

Compliance with this limit shall make 326 IAC 2-2 (Prevention of Significant Deterioration) not applicable.

D.5.2 Particulate Matter (PM) [326 IAC 6-2-4]

Pursuant to 326 IAC 6-2-4 (Particulate Matter Emission Limitations for Sources of Indirect Heating, the PM emissions from one (1) natural gas-fired boiler (ID No. EU30), shall not exceed 0.6 pounds per million Btu heat input.

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.5.3 Record Keeping Requirements

To document compliance with Condition D.5.1, the Permittee shall maintain records of fuel usage and calculate emissions using AP 42 emission factors or other emission factors approved by IDEM, OAQ.

D.5.4 Reporting Requirements

A quarterly summary of the information to document compliance with Condition D.5.1 shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the “responsible official” as defined by 326 IAC 2-7-1(34).

Mail to: Permit Administration & Development Section
Office Of Air Quality
100 North Senate Avenue
P. O. Box 6015
Indianapolis, Indiana 46206-6015

HomeCrest Corporation
P.O. Box 595
Goshen, Indiana 46527

Affidavit of Construction

I, _____, being duly sworn upon my oath, depose and say:
(Name of the Authorized Representative)

1. I live in _____ County, Indiana and being of sound mind and over twenty-one (21) years of age, I am competent to give this affidavit.

2. I hold the position of _____ for _____.
(Title) (Company Name)

3. By virtue of my position with _____,I have personal
(Company Name)
knowledge of the representations contained in this affidavit and am authorized to make these representations on behalf of _____ .
(Company Name)

4. I hereby certify that HomeCrest Corporation, 1002 Eisenhower Drive North, Goshen, Indiana, 46526, completed construction of the three (3) spray booths, the woodworking operation, and boiler on _____ _____in conformity with the requirements and intent of the construction permit application received by the Office of Air Quality on February 23, 2001 and as permitted pursuant to **Minor Source Modification 039-13961, Plant ID No. 039-00014** issued on _____

Further Affiant said not.

I affirm under penalties of perjury that the representations contained in this affidavit are true, to the best of my information and belief.

_____
Signature

_____
Date

STATE OF INDIANA)
)SS
COUNTY OF _____)

Subscribed and sworn to me, a notary public in and for _____ County and State of Indiana on this _____ day of _____, 20 _____ .

My Commission expires: _____

_____
Signature

_____
Name (typed or printed)

Indiana Department of Environmental Management
Office of Air Quality

Technical Support Document (TSD) for a Minor Source Modification, to a Part 70 Operating Permit

Source Background and Description

Source Name:	**HomeCrest Corporation**
Source Location:	**1002 Eisenhower Drive North, Goshen, IN 46527**
County:	**Elkhart**
SIC Code:	**2434**
Operation Permit No.:	**T039-6029-00014**
Operation Permit Issuance Date:	**December 22, 1998**
Source Modification No.:	**MSM 039-13961-00014**
Permit Reviewer:	**Linda Quigley/EVP**

The Office of Air Quality (OAQ) has reviewed a minor source modification application from HomeCrest Corporation relating to the construction of three (3) spray booths, woodworking operations and one (1) boiler in its wood furniture manufacturing process.

History

On February 23, 2001, HomeCrest Corporation submitted an application to the OAQ requesting to add additional surface coating booths, woodworking operations, and a boiler to their existing plant. HomeCrest Corporation was issued a Part 70 permit on December 22, 1998. This minor source modification will be incorporated into the Part 70 permit through a Significant Permit Modification No. 039-14143-00014. HomeCrest Corporation also requested a federally enforceable VOC, PM and PM10 emission limits of less than 250 tons per year and redesignation as a PSD minor source. This change will be incorporated through the Significant Permit Modification No. 039-14143-00014. This minor source modification will give the source approval to construct only.

The modification consists of the construction of the following emission units and pollution control devices:

(a) One (1) automated stain line, identified as EU27, with a maximum capacity of coating 2000 units per hour utilizing a high volume low pressure spray application, using dry filters for particulate matter control, and exhausting to stacks S41 and S42;

(b) Two (2) automated varnish lines, identified as EU28 and EU29, each with a maximum capacity of coating 2000 units per hour utilizing an airless spray application, using wet scrubbers for particulate matter control, and exhausting to stacks S43 - S47 and S48 - S52, respectively; and

(c) Millwork Woodworking equipment to replace existing woodworking operations, equipped with three (3) baghouses identified as EU15, EU16 and EU26 for particulate control, and exhausting to stacks S30, S31 and S40, respectively.

The source is also adding the following insignificant activities, as defined in 326 IAC 2-7-1(21):

(a) Natural gas-fired combustion sources with heat input equal to or less than ten (10) million Btu per hour:

(1) one (1) natural gas fired boiler, identified as EU30, rated at 3.0 MMBtu per hour and exhausting through one (1) stack identified as S53.

Existing Approvals

The source was issued a Part 70 Operating Permit T039-6029-00014 on December 22, 1998.

Enforcement Issue

There are no enforcement actions pending.

Stack Summary

Stack ID	Operation	Height (feet)	Diameter (feet)	Flow Rate (acfm)	Temperature (^{0}F)
S 30	EU15 baghouse	94	2 X 4.5	22,000	72
S 31	EU16 baghouse	54	2 X 4.5	22,000	72
S 40	EU26 baghouse	49	4 X 8.5	62,000	72
S 41	EU27 spray booth	30	2.25	5888	72
S 42	EU27	32	0.78	1178	140
S 43	EU28 spray booth	30	2.00	7063	72
S 44	EU28	32	1.00	2354	72
S 45	EU28	32	1.00	2354	91
S 46	EU28	32	1.00	2354	110
S 47	EU28	32	1.00	3944	72
S 48	EU29 spray booth	30	2.00	7063	72
S 49	EU29	32	1.00	2354	72
S 50	EU29	32	1.00	2354	91
S 51	EU29	32	1.00	2354	110
S 52	EU29	32	1.00	3944	72
S 53	EU30 boiler	n/a	n/a	n/a	n/a

Recommendation

The staff recommends to the Commissioner that the Minor Source Modification be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An application for the purposes of this review was received on February 23, 2001. Additional information was received on April 5, 2001.

Emission Calculations

See Appendix A of this document for detailed emissions calculations, pages 1 through 6.

Potential To Emit Before Controls (Modification)

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as "the maximum capacity of a stationary source to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA."

Pollutant	Potential To Emit (tons/year)
PM	greater than 250
PM-10	greater than 250
SO_2	less than 100
VOC	greater than 250
CO	less than 100
NO_x	less than 100

HAP's	Potential To Emit (tons/year)
Manganese Compounds	greater than 10
Xylene	greater than 10
Acetaldehyde	less than 10
Styrene	greater than 10
Acrolein	less than 10
MIK	greater than 10
Toluene	greater than 10
Formaldehyde	less than 10
Ethyl Benzene	greater than 10
TOTAL	greater than 25

Justification for Modification

The Title V permit is being modified through Minor Source Modification even though potential emissions are greater than twenty-five (25) tons per year. This modification is being performed pursuant to 326 IAC 2-7-10.5(d) because it is subject to the National Emission Standard for Hazardous Air Pollutants (NESHAP) 40 CFR 63, Subpart JJ. This NESHAP is the most stringent requirement for HAP emissions at this source.

The source has agreed to limit source-wide emissions of regulated pollutants to less than 250 tons per year. Therefore, this modification will be considered a minor modification to a minor PSD source and PSD requirements do not apply.

This modification will give the source approval to construct the new emission units. A Significant Permit Modification (039-14143-00014) will be issued and will incorporate the source modification and the PSD minor limit into the Part 70 permit and give the source approval to operate the new emission units.

County Attainment Status

The source is located in Elkhart County.

Pollutant	Status
PM-10	attainment
SO_2	attainment
NO_2	attainment
Ozone	maintenance
CO	attainment
Lead	attainment

(a) Volatile organic compounds (VOC) and oxides of nitrogen (NOx) are precursors for the formation of ozone. Therefore, VOC and NO_X emissions are considered when evaluating the rule applicability relating to the ozone standards. Elkhart County has been designated as attainment or unclassifiable for ozone.

Potential to Emit After Controls for the Modification

The table below summarizes the total potential to emit, reflecting all limits, of the significant emission units for the modification.

	Potential to Emit (tons/year)							
Process/facility	PM	PM-10	SO_2	VOC	CO	NOx	Single HAP	Total HAPs
Woodworking (replacing existing)	117.47	117.47	0.00	0.00	0.00	0.00	0.00	0.00
Spray Booths (new and existing)	(1)	(1)	0.00	(1)	0.00	0.00	(2)	(2)
Boiler (new and existing)	67.44	67.44	0.01	0.07	1.10	1.31	negl.	negl.
Total Emissions	(1)	(1)	0.01	(1)	1.10	1.31	(2)	(2)
Total Source (new and existing)	< 250	< 250	< 250	< 250	< 250	< 250	(2)	(2)

This source will limit source-wide emissions of criteria pollutants to less than 250 tons per year. This limit will be incorporated to the Title V permit through a Significant Permit Modification (039-14143-00014). This source modification is approval to construct only. However, it will be considered a minor modification to a minor PSD source because the source will obtain permit to operate through the Significant Permit Modification incorporating all limits. Therefore, pursuant to 326 IAC 2-2 and 40 CFR 52.21, the PSD requirements do not apply.

(1) *Source-wide emissions of VOC, PM and PM10 will be limited to less than 250 tons per year.*

(2) *HAP emissions will be limited by the requirements of the National Emission Standards for Hazardous Air Pollutants, 326 IAC 14, 40 CFR 63, Subpart JJ.*

Federal Rule Applicability

(a) The one (1) natural gas fired boiler, identified as EU30, is not subject to the requirements of the New Source Performance Standard, 326 IAC 12, (40 CFR 60.40c, Subpart Dc), because it has a maximum heat input rate of less than 10 MMBtu/hr.

(b) This source is subject to the National Emission Standards for Hazardous Air Pollutants, 326 IAC 14, 40 CFR 63, Subpart JJ.

Pursuant to 40 CFR 63, Subpart JJ, the wood furniture coating operations shall comply with the following conditions upon startup:

(1) Limit the Volatile Hazardous Air Pollutants (VHAP) emissions from finishing operations as follows:

(A) Achieve a weighted average volatile hazardous air pollutant (VHAP) content across all coatings of one (1.0) pound VHAP per pound solids; or

(B) Use compliant finishing materials in which all stains, washcoats, sealers, topcoats, basecoats and enamels have a maximum VHAP content of one (1.0) pound VHAP per pound solid, as applied. Thinners used for on-site formulation of washcoats, basecoats, and enamels have a three percent (3.0%) maximum VHAP content by weight. All other thinners have a ten percent (10.0%) maximum VHAP content by weight; or

(C) Use a control device to limit emissions to one (1.0) pound VHAP per pound solids; or

(D) Use a combination of (A), (B), and (C).

(2) Limit VHAP emissions contact adhesives as follows:

(A) For foam adhesives used in products that meet the upholstered seating flammability requirements, the VHAP content shall not exceed 1.8 pound VHAP per pound solids.

(B) For all other contact adhesives (except aerosols and contact adhesives applied to nonporous substrates) the VHAP content shall not exceed one (1.0) pound VHAP per pound solids.

(C) Use a control device to limit emissions to one (1.0) pound VHAP per pound solids.

(3) The strippable spray booth material shall have a maximum VOC content of eight-tenths (0.8) pounds VOC per pound solids.

(4) The owner or operator of an affected source subject to this subpart shall prepare and maintain a written work practice implementation plan within sixty (60) calendar days after the compliance date. The work practice implementation plan must define environmentally desirable work practices for each wood furniture manufacturing operation and at a minimum address each of the following work practice standards as defined under 40 CFR 63.803:

(A) Operator training course.
(B) Leak inspection and maintenance plan.
(C) Cleaning and washoff solvent accounting system.
(D) Chemical composition of cleaning and washoff solvents.
(E) Spray booth cleaning.
(F) Storage requirements.
(G) Conventional air spray guns shall only be used under the circumstances defined under 40 CFR 63.803(h).
(H) Line cleaning.
(I) Gun cleaning.
(J) Washoff operations.
(K) Formulation assessment plan for finishing operations.

(5) Records shall be maintained in accordance with (A) through (E) below. Records maintained for (A) through (E) shall be complete and sufficient to establish compliance with the VHAP usage limits.

(A) Certified Product Data Sheet for each finishing material, thinner, contact adhesive and strippable booth coating.

(B) The HAP content in pounds of VHAP per pounds of solids, as applied, for all finishing materials and contact adhesives used.

(C) The VOC content in pounds of VOC per pounds of solids, as applied, for each strippable coating used.

(D) The VHAP content in weight percent of each thinner used.

(E) When the averaging compliance method is used, copies of the averaging calculations for each month as well as the data on the quantity of coating and thinners used to calculate the average.

(6) An Initial Compliance Report shall be submitted within sixty (60) days following start up. The Initial Compliance Report must include data from the entire month that the compliance date falls.

(7) A semi-annual Continuous Compliance Report shall be submitted within thirty (30) days after the end of the six (6) months being reported.

The six (6) month periods shall cover the following months:

(A) January 1 through June 30.

(B) July 1 through December 31.

State Rule Applicability - Entire Source

326 IAC 2-6 (Emission Reporting)

This source is still subject to 326 IAC 2-6 (Emission Reporting), because it is located in Elkhart County and has the potential to emit more than ten (10) tons per year of VOC. Pursuant to this rule, the owner/operator of the source must annually submit an emission statement for the source. The annual statement must be received by April 15 of each year and contain the minimum requirement as specified in 326 IAC 2-6-4. The submittal should cover the period defined in 326 IAC 2-6-2(8)(Emission Statement Operating Year).

326 IAC 5-1 (Visible Emissions Limitations)

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

(a) Opacity shall not exceed an average of forty percent (40%) any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

(b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings) as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

State Rule Applicability - Individual Facilities

326 IAC 2-2 (Prevention of Significant Deterioration)

Pursuant to 326 IAC 2-2 and 40 CFR 52.21 (Prevention of Significant Deterioration, PSD), this proposed modification is not considered a major modification because it has the potential to emit less than applicable PSD significant emission levels for any regulated pollutant. HomeCrest Corporation requests that the equipment listed in this source modification and the existing equipment be included into a minor PSD limit. Therefore, the entire source (i.e., emission units previously permitted under T039-6029-00014 and emission units for this source modification) will be limited to less than 250 tons of VOC, PM and PM10 emissions per twelve (12) consecutive month period. Therefore, the PSD rules, 326 IAC 2-2 and 40 CFR 52.21, will not apply.

326 IAC 2-4.1 (New Source Toxics Control)

Pursuant to 326 IAC 2-4.1 (New Source Toxics Control), any new process or production unit, which in and of itself emits or has the potential to emit (PTE) 10 tons per year of any HAP or 25 tons per year of any combination of HAPs, must be controlled using technologies consistent with Maximum Achievable Control Technology (MACT). This source is subject to the National Emissions Standards for Hazardous Air Pollutants 40 CFR Part 63, Subpart JJ. Compliance with 40 CFR Part 63, Subpart JJ will satisfy the requirements of 326 IAC 2-4.1.

326 IAC 6-3-2 (Process Operations)

(a) The particulate matter (PM) from the woodworking operations shall be limited by the following:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour and P = process weight rate in tons per hour

$E = 4.10\ (16.50)^{0.67} = 26.82$

Based on the above equation, particulate matter emissions from the woodworking operations shall be limited to 26.82 lb/hr.

The three (3) baghouses shall be in operation at all times the woodworking facility is in operation, in order to comply with this limit.

(b) The particulate matter (PM) from the spray booths (EU27, EU28, and EU29) shall be limited by the following:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour and P = process weight rate in tons per hour

326 IAC 6-2-4 (Particulate Emission Limitations for Sources of Indirect Heating)

The one (1) natural gas fired boiler (EU 30), with a heat input capacity rating of 3.0 MMBtu per hour, is subject to the particulate matter limitations of 326 IAC 6-2-4. Pursuant to this rule, particulate emissions from indirect heating facilities constructed after September 21, 1983, shall be limited by the following equation:

$Pt = 1.09/Q^{0.26}$

where: Pt = maximum allowable particulate matter (PM) emitted per MMBtu heat input
Q = total source max. operation capacity rating = 3.0 MMBtu/hr

For Q less than ten (10) MMBtu/hr, Pt shall not exceed 0.6.

Therefore, the maximum allowable particulate matter (PM) is 0.6 lb/MMBtu which is equivalent to a PM emission rate of 1.8 lb/hr for boiler ID No. EU 30. Potential PM emissions from the boiler are 0.02 tons per year, therefore this facility is in compliance with 326 IAC 6-2-4.

326 IAC 8-1-6 (New Facilities, General Reduction Requirements)

The requirement to reduce VOC emissions using the Best Available Control Technology (BACT) does not apply to the surface coating operation because the operation is subject to 326 IAC 8-2-12 (Wood Furniture and Cabinet Coating).

326 IAC 8-2-12 (Wood Furniture and Cabinet Coating)

Pursuant to 326 IAC 8-2-12, the surface coating applied to wood furniture and cabinets shall utilize one of the following methods:

Airless Spray Application
Air Assisted Airless Spray Application
Electrostatic Spray Application
Electrostatic Bell or Disc Application
Heated Airless Spray Application
Roller Coating
Brush or Wipe Application
Dip-and Drain Application

High Volume Low Pressure (HVLP) Spray Application is an accepted alternative method of application for Air Assisted Airless Spray Application. HVLP spray is the technology used to apply coating to substrate by means of coating application equipment which operates between one-tenth (0.1) and ten (10) pound per square inch gauge (psig) air pressure measured dynamically at the center of the air cap and at the air horns of the spray system. The application methods in the spray booths EU27, EU28 and EU29 all comply with 326 IAC 8-2-12.

Testing Requirements

PM and PM10 emissions from surface coating are calculated as follows:

material usage * solid content * (1-transfer efficiency) * (1-control efficiency)

However, the facilities may not comply with the PSD limit for PM and PM10 of less than 250 tons per year. Therefore, stack tests will be required.

Compliance Requirements

Permits issued under 326 IAC 2-7 are required to ensure that sources can demonstrate compliance with applicable state and federal rules on a more or less continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a more or less continuous demonstration. When this occurs IDEM, OAQ, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-7-5. As a result, compliance requirements are divided into two sections: Compliance Determination Requirements and Compliance Monitoring Requirements.

Compliance Determination Requirements in Section D of the permit are those conditions that are found more or less directly within state and federal rules and the violation of which serves as grounds for enforcement action. If these conditions are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also Section D of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source's failure to take the appropriate corrective actions within a specific time period.

The compliance monitoring requirements applicable to this source are as follows:

1. The spray booths have applicable compliance monitoring conditions as specified below:

   (a) Daily inspections shall be performed to verify the placement, integrity and particle loading of the filters. To monitor the performance of the dry filters, daily observations shall be made of the overspray while one or more of the booths are in operation. The Compliance Response Plan shall be followed whenever a condition exists which should result in a response step. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.

   (b) Weekly inspections shall be performed of the coating emissions from the stack and the presence of overspray on the rooftops and the nearby ground. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an overspray emission, evidence of overspray emission, or other abnormal emission is observed. The Compliance Response Plan shall be followed whenever a condition exists which should result in a response step. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.

   (c) Additional inspections and preventive measures shall be performed as prescribed in the Preventive Maintenance Plan.

   These monitoring conditions are necessary because the dry filters for the spray booths must operate properly to ensure compliance with 326 IAC 6-3-2(c) (Process Operations).

2. The woodworking operations have applicable compliance monitoring conditions as specified below:

   (a) Daily visible emissions notations of the all woodworking baghouse stacks shall be performed during normal daylight operations. A trained employee will record whether emissions are normal or abnormal. For processes operated continuously "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time. In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions. A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process. The Preventive Maintenance Plan for this unit shall contain troubleshooting contingency and corrective actions for when an abnormal emission is observed.

(b) An inspection shall be performed each calendar quarter of all bags controlling the woodworking operation when venting to the atmosphere. A baghouse inspection shall be performed within three months of redirecting vents to the atmosphere and every three months thereafter. Inspections are optional when venting indoors. All defective bags shall be replaced.

These monitoring conditions are necessary because baghouses for the woodworking operations must operate properly to ensure compliance with 326 IAC 6-3 (Process Operations) and 326 IAC 2-7 (Part 70).

Proposed Changes

A. SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ). The information describing the source contained in conditions A.1 through A.3 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

A.1 A.1 General Information [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)]

The Permittee owns and operates a wood furniture manufacturing plant.

Responsible Official:	Doug Conley
Source Address:	1002 Eisenhower Drive North, Goshen, IN 46526
Mailing Address:	P.O. Box 595, Goshen, IN 46527
SIC Code:	2434
County Location:	Elkhart
County Status:	Attainment for all criteria pollutants
Source Status:	Part 70 Permit Program ~~Major~~ **Minor** Source, under PSD Rules Major Source, Section 112 of the Clean Air Act

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)][326 IAC 2-7-5(15)]

This stationary source consists of the following emission units and pollution control devices:

(a) One (1) natural gas or wood fired boiler EU 1, with a maximum rating of 17 MMBtu (million British thermal units) per hour. Emissions shall be controlled by a cyclone, then exhausted at Stack ID #S1;

(b) ~~Woodworking operations EU 15 - EU 24, with a maximum rating of 33,000 pounds per hour. Emissions shall be controlled by baghouses, then exhausted at Stacks ID #S30-S39.~~ **Millwork Woodworking equipment equipped with three (3) baghouses identified as EU15, EU16 and EU26 for particulate control, and exhausting to stacks S30, S31 and S40, respectively;**

(c) One (1) solid waste natural gas fired incinerator EU 2, with a maximum rating of 250 pounds per hour. Emissions shall be exhausted at Stack ID #S2;

(d) ~~Ten (10)~~ **Thirteen (13)** Spray booths EU 3 - EU 12, **EU 27, EU 28 and EU 29**, consisting of the following:

(1) One (1) custom research and development paint booth EU 3, with a maximum rating of 3 units per hour. Emissions shall be controlled by dry filters, then exhausted at Stack ID #S3;

(2) One (1) hanging line toner booth EU 4, with a maximum rating of 600 units per hour. Emissions shall be controlled by dry filters, then exhausted at Stacks ID #S4 - S7;

(3) One (1) hanging line sealer booth EU 5, with a maximum rating of 600 units per hour. Emissions shall be controlled by dry filters, then exhausted at Stacks ID #S8 - S9;

(4) One (1) hanging line topcoat booth EU 6, with a maximum rating of 600 units per hour. Emissions shall be controlled by dry filters, then exhausted at Stacks ID #S10 - S11;

(5) One (1) flat line toner booth EU 7, with a maximum rating of 960 units per hour. Emissions shall be controlled by dry filters, then exhausted at Stacks ID #S12 - S15;

(6) One (1) flat line sealer booth EU 8, with a maximum rating of 960 units per hour. Emissions shall be controlled by dry filters, then exhausted at Stacks ID #S16 - S17;

(7) One (1) flat line topcoat booth EU 9, with a maximum rating of 960 units per hour. Emissions shall be controlled by dry filters, then exhausted at Stacks ID #S18 - S20;

(8) One (1) flat line repair booth EU 10, with a maximum rating of 180 units per hour. Emissions shall be controlled by dry filters, then exhausted at Stack ID #S21;

(9) One (1) parts booth EU 11, with a maximum rating of 180 units per hour. Emissions shall be controlled by dry filters, then exhausted at Stacks ID #S22-S24;

(10) One (1) hanging line repair booth EU 12, with a maximum rating of 180 units per hour. Emissions shall be controlled by dry filters, then exhausted at Stack ID #S25;

(11) One (1) automated stain line, identified as EU 27 with a maximum capacity of coating 2000 units per hour utilizing a high volume low pressure spray application, using dry filters for particulate matter control, and exhausting to stacks S 41 and S 42;

(12) Two (2) automated varnish lines, identified as EU 28 and EU 29, each with a maximum capacity of coating 2000 units per hour utilizing an airless spray application, using wet scrubbers for particulate matter control, and exhausting to stacks S 43 - S 47 and S 48 - S 52, respectively.

A.3 Specifically Regulated Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)]

This stationary source also includes the following insignificant activities which are specifically regulated, as defined in 326 IAC 2-7-1(21):

(a) Natural gas-fired combustion sources with heat input equal to or less than ten (10) million Btu per hour:

(1) one (1) natural gas fired boiler, identified as EU30, rated at 3.0 MMBtu per hour and exhausting through one (1) stack identified as S53.

~~(a)~~ **(b)** The following equipment related to manufacturing activities not resulting in the emission of HAPs; brazing equipment, cutting torches, soldering equipment, welding equipment.

~~(b)~~ **(c)** Grinding and machining operations controlled with fabric filters, scrubbers, mist collectors, wet collectors and electrostatic precipitators with a design grain loading of less than or equal to 0.03 grains per actual cubic foot and a gas flow rate less than or equal to 4000 actual cubic feet per minute, including the following: deburring; buffing; polishing; abrasive blasting; pneumatic conveying; woodworking operations and Dust collection Emission Unit number 25.

D.1 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)] (1) one natural gas or wood fired boiler EU 1, with a maximum rating of 17 MMBtu per hour. Emissions shall be controlled by cyclone, then exhausted at Stack/Vent ID #S1.

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.1.1 PSD Minor Limit [326 IAC 2-2] [40 CFR 52.21]

The entire source shall be limited to less than 250 tons of PM and PM10 emissions per twelve consecutive month period. This limitation includes equipment listed in sections D.1 through D.5.

Compliance with this limit shall make 326 IAC 2-2 (Prevention of Significant Deterioration) not applicable.

~~D.1.1~~ **D.1.2** Particulate Matter (PM) [326 IAC 6-2-3]

Pursuant to 326 IAC 6-2-3 (Particulate emission limitations for sources of indirect heating), the particulate matter emissions from the 17 MMBtu per hour natural gas or wood fired boiler shall be limited to 0.8 pounds per MMBtu.

~~D.1.2~~ **D.1.3** Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for this facility.

Compliance Determination Requirements

~~D.1.3~~ **D.1.4** Testing Requirements [326 IAC 2-7-6(1), (6)]

The Permittee is not required to test this facility by this permit. However, IDEM may require compliance testing at any specific time when necessary to determine if the facility is in compliance. If testing is required by IDEM, compliance with the PM **and PM10** limit**s** specified in Condition**s** D.1.1 **and D.1.2** shall be determined by a performance test conducted in accordance with Section C - Performance Testing.

Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

~~D.1.4~~ **D.1.5** Visible Emissions Notations

(a) Daily visible emission notations of the 17 MMBtu per hour boiler cyclone stack exhaust shall be performed during normal daylight operations when wood is combusted in the boiler. A trained employee shall record whether emissions are normal or abnormal.

(b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.

(c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.

(d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

(e) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed.

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

~~D.1.5~~ **D.1.6** Record Keeping Requirements

(a) To document compliance with Condition ~~D.1.4~~ **D.1.5**, the Permittee shall maintain records of daily visible emission notations of the 17 MMBtu per hour boiler cyclone stack exhaust whenever wood is burned.

(b) To document compliance with Condition D.1.1, the Permittee shall maintain records of fuel usage and calculate emissions using AP 42 emission factors or other emission factors approved by IDEM, OAQ.

D.1.7 Reporting Requirements

A quarterly summary of the information to document compliance with Condition D.1.1 shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

Section D.2 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]
~~Woodworking operations EU 15 - EU 24, with a maximum rating of 33,000 pounds per hour. Emissions shall be controlled by baghouses, then exhausted at Stacks ID# S30-S39.~~
Millwork Woodworking equipment equipped with three (3) baghouses identified as EU15, EU16 and EU26 for particulate control, and exhausting to stacks S30, S31 and S40, respectively.
(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.2.1 PSD Minor Limit [326 IAC 2-2] [40 CFR 52.21]

The entire source shall be limited to less than 250 tons of PM and PM10 emissions per twelve consecutive month period. This limitation includes equipment listed in sections D.1 through D.5.

Compliance with this limit shall make 326 IAC 2-2 (Prevention of Significant Deterioration) not applicable.

~~D.2.1~~ **D.2.2** Particulate Matter (PM) [326 IAC 6-3-2(c)]

Pursuant to 326 IAC 6-3-2(c) (Process Operations), the allowable PM emission rate from the woodworking facilities shall not exceed 26.8 pounds per hour when operating at a process weight rate of 33,000 pounds per hour.

The pounds per hour limitation was calculated with the following equation:

Interpolation and extrapolation of the data for the process weight rate up to 60,000 pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour

~~D.2.2~~ **D.2.3** Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for this facility and its control device.

Compliance Determination Requirements

~~D.2.3~~ **D.2.4** Testing Requirements [326 IAC 2-7-6(1), (6)]

The Permittee is not required to test these facilities by this permit. However, IDEM may require compliance testing at any specific time when necessary to determine if the facility is in compliance. If testing is required by IDEM, compliance with the PM **and PM10** limit**s** specified in Condition**s** D.2.1 **and D.2.2** shall be determined by a performance test conducted in accordance with Section C - Performance Testing.

~~D.2.4~~ **D.2.5** Particulate Matter (PM)

The baghouses for PM control shall be in operation at all times when the woodworking machinery is in operation.

Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

~~D.2.5~~ **D.2.6** Visible Emissions Notations

(a) Daily visible emission notations of the woodworking baghouse stacks exhaust shall be performed during normal daylight operations when vented to the outside atmosphere. A trained employee shall record whether emissions are normal or abnormal.

(b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.

(c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.

(d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

(e) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed.

~~D.2.6~~ **D.2.7** Baghouse Inspections

An inspection shall be performed each calendar quarter of all bags controlling the woodworking operation when venting to the atmosphere. A baghouse inspection shall be performed within three months of redirecting vents to the atmosphere and every three months thereafter. Inspections are optional when venting indoors. All defective bags shall be replaced.

~~D.2.7~~ **D.2.8** Broken or Failed Bag Detection

In the event that bag failure has been observed.

(a) The affected compartments will be shut down immediately until the failed units have been repaired or replaced. Within eight (8) hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) hours of discovery of the failure and shall include a timetable for completion. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

(b) For single compartment baghouses, failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

Record Keeping [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

~~D.2.8~~ **D.2.9** Record Keeping Requirements

(a) To document compliance with Conditions ~~D.2.4 and~~ D.2.5 **and D.2.6**, the Permittee shall maintain records of daily visible emission notations of the woodworking baghouse stacks exhaust.

(b) To document compliance with Condition ~~D.2.6~~ **D.2.7**, the Permittee shall maintain records of the results of the inspections required under Condition ~~D.2.6~~ **D.2.7** and the dates the vents are redirected.

(c) **To document compliance with Condition D.2.1, the Permittee shall maintain records of PM and PM10 emissions.**

(d) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.2.10 Reporting Requirements

A quarterly summary of the information to document compliance with Condition D.2.1 shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

D.3 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]
One (1) solid waste natural gas fired incinerator EU 2, with a maximum rating of 250 pounds per hour and exhausted at Stack/Vent ID #S2.

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.3.1 PSD Minor Limit [326 IAC 2-2] [40 CFR 52.21]

(a) The entire source shall be limited to less than 250 tons of PM and PM10 emissions per twelve consecutive month period. This limitation includes equipment listed in sections D.1 through D.5.

(b) The entire source shall be limited to less than 250 tons of VOC, including coatings, dilution solvents, and cleaning solvents, per 12 consecutive month period. This limitation includes equipment listed in sections D.3 and D.4.

(c) Compliance with limits in D.3.1(a) and D.3.1(b) shall make 326 IAC 2-2 (Prevention of Significant Deterioration) not applicable.

~~D.3.1~~ **D.3.2** Solid Waste Incinerator [326 IAC 4-2-2]

Pursuant to 326 IAC 4-2-2 (Incinerators), this solid waste natural gas incinerator, rated at 250 pounds per hour shall:

(a) Consist of primary and secondary chambers or the equivalent.
(b) Be equipped with a primary burner unless burning wood products.
(c) Comply with 326 IAC 5-1 (Opacity limitations).
(d) Be maintained properly as specified by the manufacturer and approved by IDEM.
(e) Be operated according to the manufacturer's recommendation and only burn waste approved by IDEM.
(f) Comply with other state and/or local rules or ordinances regarding installation and operation of incinerators.
(g) Be operated so that emissions of hazardous material including, but not limited to, viable pathogenic bacteria, dangerous chemical or gases, or noxious odors are prevented.
(h) Not create a nuisance or a fire hazardous.
(i) Not emit particulate matter (PM) in excess of 0.3 pounds per 1000 pounds of dry exhaust gas corrected to fifty percent (50%) excess air.

The operation of this incinerator shall be terminated immediately upon noncompliance with any of the above mentioned requirements.

~~D.3.2~~ **D.3.3** Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for this facility.

Compliance Determination Requirements

~~D.3.3~~ **D.3.4** Testing Requirements [326 IAC 2-7-6(1), (6)]

The Permittee is not required to test this facility by this permit. However, IDEM may require compliance testing at any specific time when necessary to determine if the facility is in compliance. If testing is required by IDEM, compliance with the PM **and PM10** limit**s** specified in Condition**s** D.3.1 **and D.3.2** shall be determined by a performance test conducted in accordance with Section C - Performance Testing.

Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

~~D.3.4~~ **D.3.5** Visible Emissions Notations

(a) Daily visible emission notations of the incinerator stack exhaust shall be performed during normal daylight operations whenever the incinerator is in operation. A trained employee shall record whether emissions are normal or abnormal.

(b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.

(c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.

(d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

(e) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed.

Record Keeping [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

~~D.3.5~~ **D.3.6** Record Keeping Requirements

(a) To document compliance with Condition ~~D.3.4~~ **D.3.5**, the Permittee shall maintain records of daily visible emission notations of the incinerator stack exhaust.

(b) To document compliance with Condition D.3.1(a) and D.3.1(b), the Permittee shall maintain records of PM, PM10 and VOC emissions.

D.3.7 Reporting Requirements

A quarterly summary of the information to document compliance with Conditions D.3.1(a) and D.3.1(b) shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

SECTION D.4 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]
~~Ten (10)~~ **Thirteen (13)** surface coating booths, identified as units EU 3, EU 4, EU 5, EU 6, EU 7, EU 8, EU 9, EU 10, EU 11, EU 12, **EU27, EU28 and EU29**, with dry filters for control. Unit EU-3 exhausts to Stack ID# S3; Unit EU 4 exhausts to Stacks ID# S4 - S7; Unit EU 5 exhausts to Stacks ID# S8 and S9; Unit EU 6 exhausts to Stacks ID# S10 and S11; Unit EU 7 exhausts to Stacks ID# S12 - S15; Unit EU 8 exhausts to Stacks ID# S16 and S17; Unit EU 9 exhausts to Stacks ID# S18-S20; Unit EU 10 exhausts to Stack ID# 21; Unit EU 11 exhausts to Stacks ID# S22 - S24; Unit EU 12 exhausts to Stack ID# S25; **Unit EU 27 exhausts to Stacks ID# S41 - S42; Unit EU 28 exhausts to Stacks ID# S43 - S47; Unit EU 29 exhausts to Stacks ID# S48 - S52.**
(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.4.1 PSD Minor Limit [326 IAC 2-2] [40 CFR 52.21]

(a) The entire source shall be limited to less than 250 tons of PM and PM10 emissions per twelve consecutive month period. This limitation includes equipment listed in sections D.1 through D.5.

(b) The entire source shall be limited to less than 250 tons of VOC, including coatings, dilution solvents, and cleaning solvents, per 12 consecutive month period. This limitation includes equipment listed in sections D.3 and D.4.

(c) Compliance with limits in D.4.1(a) and D.4.1(b) shall make 326 IAC 2-2 (Prevention of Significant Deterioration) not applicable.

~~D.4.1~~ **D.4.2** Particulate Matter (PM) [326 IAC 6-3-2(c)]

Pursuant to 326 IAC 6-3-2(c) (Process Operations), the PM from each of the ~~ten (10)~~ **thirteen (13)** surface coating booths (EU 3 through EU 12, **EU 27, EU 28 and EU 29**) shall not exceed the pound per hour emission rate established as E in the following formula:

Interpolation and extrapolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour

~~D.4.2 Volatile Organic Compound (VOC)~~

~~Any change or modification which may increase potential emissions from the surface coating operations shall require prior approval from the OAQ to determine applicability requirements of 326 IAC 8, before such change may occur.~~

~~D.4.3 Volatile Organic Compounds (VOC) [326 IAC 8-2-12]~~

Pursuant to 326 IAC 8-2-12 (Wood Furniture and Cabinet Coating), with the exception of no more than ten (10) gallons of coating per day used for touch-up and repair operations, the surface coating applied to wood furniture and cabinets shall utilize one of the following application methods:

Airless Spray Application
Air Assisted Airless Spray Application
Electrostatic Spray Application
Electrostatic Bell or Disc Application
Heated Airless Spray Application
Roller Coating
Brush or Wipe Application
Dip-and Drain Application

High Volume Low Pressure (HVLP) Spray Application is an accepted alternative method of application for Air Assisted Airless Spray Application. HVLP spray is the technology used to apply coating to substrate by means of coating application equipment which operates between one-tenth (0.1) and ten (10) pound per square inch gauge (psig) air pressure measured dynamically at the center of the air cap and at the air horns of the spray system.

~~D.4.4 Wood Furniture NESHAP [40 CFR 63, Subpart JJ]~~

(a) The wood furniture coating operation is subject to the National Emission Standards for Hazardous Air Pollutants (NESHAP), 326 IAC 20-14, (40 CFR 63, Subpart JJ), with a compliance date of November 21, 1997.

(b) Pursuant to 40 CFR 63, Subpart JJ, the wood furniture coating operations shall comply with the following conditions:

(1) Limit the volatile hazardous air pollutant (VHAP) emissions from finishing operations as follows:

(A) Achieve a weighted average VHAP content across all coatings of 1.0 pound VHAP per pound solids; or

(B) Use compliant finishing materials in which all stains, washcoats, sealers, topcoats, basecoats and enamels have a maximum VHAP content of 1.0 pound VHAP per pound solid, as applied. Thinners used for on-site formulation of washcoats, basecoats, and enamels have a 3.0 percent maximum VHAP content by weight. All other thinners have a 10.0 percent maximum VHAP content by weight; or

(C) Use a control device to limit emissions; or

(D) Use a combination of (A), (B), and (C).

(2) Limit VHAP emissions contact adhesives as follows:

(A) For foam adhesives used in products that meet the upholstered seating flammability requirements, the VHAP content shall not exceed 1.8 pounds VHAP per pound solids.

(B) For all other contact adhesives (except aerosols and contact adhesives applied to nonporous substrates) the VHAP content shall not exceed 1.0 pound VHAP per pound solid.

(C) Use a control device to limit emissions.

(3) The strippable spray booth material shall have a maximum VOC content of 0.8 pounds VOC per pound solids.

D.4.5 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for this facility and its control device.

D.4.6 Work Practice Standards [40 CFR 63.803]

The owner or operator of an affected source subject to this subpart shall prepare and maintain a written work practice implementation plan within sixty (60) calendar days after the compliance date. The work practice implementation plan must define environmentally desirable work practices for each wood furniture manufacturing operation and at a minimum address each of the following work practice standards as defined under 40 CFR 63.803:

(a) Operator training course.
(b) Leak inspection and maintenance plan.
(c) Cleaning and washoff solvent accounting system.
(d) Chemical composition of cleaning and washoff solvents.
(e) Spray booth cleaning.
(f) Storage requirements.
(g) Conventional air spray guns shall only be used under the circumstances defined under 40 CFR 63.803(h).
(h) Line Cleaning.
(i) Gun Cleaning.
(j) Washoff operations.
(k) Formulation assessment plan for finishing operations.

Compliance Determination Requirements

D.4.7 Testing Requirements [326 IAC 2-7-6(1), (6)] [40 CFR 63, Subpart JJ]

(a) Pursuant to 40 CFR 63, subpart JJ, if the Permittee elects to demonstrate compliance using 63.804(a)(3) or 63.804(c)(2) or 63.804(d)(3) or 63.804(e)(2), performance testing must be conducted in accordance with 40 CFR 63, subpart JJ and 326 IAC 3-6.

~~(b) IDEM may require compliance testing at any specific time when necessary to determine if the facility is in compliance. If testing is required by IDEM, compliance with the limit specified in Conditions D.4.1 and D.4.4 shall be determined by a performance test conducted in accordance with Section C-Performance Testing.~~

(b) During the period between 18 and 24 months after issuance of this permit, in order to verify the dry filters and wet scrubbers control efficiencies, the Permittee shall perform PM and PM-10 testing on dry filters for one (1) of the eleven (11) surface coating booths controlled by dry filters for one (1) of the two (2) surface coating booths controlled by wet scrubber utilizing methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. PM-10 includes filterable and condensible PM-10. Testing shall be conducted in accordance with Section C-Performance Testing.

D.4.8 Volatile Organic Compounds (VOC)

(a) Compliance with VOC content limitations contained in Condition D.4.4 shall be determined pursuant to 326 IAC 8-1-4(a)(3) and 326 IAC 8-1-2(a), using formulation data supplied by the coating manufacturer. The OAQ reserves the authority to determine compliance using Method 24 in conjunction with the analytical procedure specified in 326 IAC 8-1-4.

(b) Compliance with Condition D.4.1(b) shall be demonstrated within 30 days of the end of each month based on the total volatile organic compound usage for the twelve (12) month period.

D.4.9 Particulate Matter (PM)

Compliance with Condition D.4.1(a) shall be demonstrated within 30 days of the end of each month based on the material usage and solid content of the material, the transfer efficiency of the application methods, and control efficiency of the dry filters for the twelve (12) month period. PM and PM10 emissions from surface coating shall be calculated using the following equation:

material usage * solid content * (1-transfer efficiency) * (1- control efficiency)

A transfer efficiency of 75% shall be used for airless or HVLP coating application.
A minimum control efficiency of 94% or the control efficiency determined in the stack testing shall be used for the control efficiency of the dry filters or wet scrubbers.

Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

~~D.4.9~~ **D.4.10** Particulate Matter (PM)

The dry filters **and wet scrubbers** for PM over spray control shall be in operation at all times when the ~~ten (10)~~ **thirteen (13)** surface coating booths are in operation.

~~D.4.10~~ **D.4.11** Monitoring

(a) Daily inspections shall be performed to verify the placement, integrity and particle loading of the filters. To monitor the performance of the dry filters, weekly observations shall be made of the overspray from the surface coating booth stacks, while one or more of the booths are in operation. The Compliance Response Plan shall be followed whenever a condition exists which should result in a response step. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.

(b) Monthly inspections shall be performed of the coating emissions from the stack and the presence of overspray on the rooftops and the nearby ground. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when a noticeable change in overspray emission, or evidence of overspray emission is observed. The Compliance Response Plan shall be followed whenever a condition exists which should result in a response step. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.

(c) Additional inspections and preventive measures shall be performed as prescribed in the Preventive Maintenance Plan.

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

~~D.4.11~~ **D.4.12** Record Keeping Requirements

(a) To document compliance with Condition D.4.4 the Permittee shall maintain records in accordance with (1) through (5) below. Records maintained for (1) through (5) shall be complete and sufficient to establish compliance with the VHAP usage limits established in Condition D.4.4.

(1) Certified Product Data Sheet for each finishing material, thinner, contact adhesive and strippable booth coating.

(2) The VHAP content in pounds of VHAP per pounds of solids, as applied, for all finishing materials and contact adhesives used.

(3) The VOC content in pounds of VOC per pounds of solids, as applied, for each strippable coating used.

(4) The VHAP content in weight percent of each thinner used.

(5) When the averaging compliance method is used, copies of the averaging calculations for each month as well as the data on the quantity of coating and thinners used to calculate the average.

(b) To document compliance with Condition D.4.1(a), the Permittee shall maintain records in accordance with (1) through (4) below. Records maintained for (1) through (4) shall be taken monthly and shall be complete and sufficient to establish compliance with the PM and PM10 emission limits established in Condition D.4.1(b).

(1) The amount and solid content of each coating material used. Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used;

(2) A log of the dates of use;

(3) The total material usage for each month; and

(4) Calculated particulate matter emission for each month using the formula listed in Condition D.4.9.

(c) To document compliance with Condition D.4.1(b), the Permittee shall maintain records in accordance with (1) through (5) below. Records maintained for (1) through (5) shall be taken monthly and shall be complete and sufficient to establish compliance with the VOC usage limits and/or the VOC emission limits established in Condition D.4.1(b).

(1) The amount and VOC content of each coating material and solvent used. Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used. Solvent usage records shall differentiate between those added to coatings and those used as cleanup solvents;

(2) A log of the dates of use;

(3) The cleanup solvent usage for each month;

(4) The total VOC usage for each month; and

(5) The weight of VOCs emitted for each compliance period.

(d) To document compliance with Condition D.4.6, the Permittee shall maintain records demonstrating actions have been taken to fulfill the Work Practice Implementation Plan.

(e) To document compliance with Conditions ~~D.4.9~~ D.4.10 and **D.4.11**, the Permittee shall maintain a log of weekly over spray observations, daily and monthly inspections and those additional inspections prescribed by the Preventive Maintenance Plan.

(f) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

~~D.4.12~~ **D.4.13** Reporting Requirements

(a) An Initial Compliance Report to document compliance with Condition D.4.4, and the Certification form, shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, within sixty (60) calendar days ~~following the compliance date of November 21, 1997.~~ **after the start up of the proposed units (EU27, EU28 and EU29)**. The initial compliance report must include data from the entire month that the compliance date falls.

(b) A semi-annual Continuous Compliance Report to document compliance with Condition D.4.4, and the Certification form, shall be submitted to the address listed in Section C -

General Reporting Requirements of this permit, within thirty (30) days after the end of the six (6) months being reported.

~~For the first year following the compliance date, the Continuous Compliance Reports shall cover the following months:~~

~~(1) November 21, 1997 through May 20, 1998.~~

~~(2) May 21 through November 30, 1998.~~

~~(3) December 1 through December 31, 1998.~~

(c) ~~Following the first year of reporting,~~ The semi-annual Continuous Compliance Report shall be submitted on a calendar year basis with the reporting periods ending June 30 and December 31.

(d) A quarterly summary of the information to document compliance with Condition D.4.1(a) and D.4.1(b) shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

~~(d)~~ **(e)** The reports required in (a), (b) and (c) of this condition shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

and

United States Environmental Protection Agency, Region V
Air and Radiation Division, Air Enforcement Branch - Indiana (AE-17J)
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

SECTION D.5 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description - Insignificant Activity
One (1) natural gas-fired boiler, identified as EU30, with a heat input capacity of 3.0 million Btu per hour (MMBtu), and exhausting to stack S53.
(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards

D.5.1 PSD Minor Limit [326 IAC 2-2] [40 CFR 52.21]

The entire source shall be limited to less than 250 tons of PM and PM10 emissions per twelve consecutive month period. This limitation includes equipment listed in sections D.1 through D.5.

Compliance with this limit shall make 326 IAC 2-2 (Prevention of Significant Deterioration) not applicable.

D.5.2 Particulate Matter (PM) [326 IAC 6-2-4]

Pursuant to 326 IAC 6-2-4 (Particulate Matter Emission Limitations for Sources of Indirect Heating, the PM emissions from one (1) natural gas-fired boiler (ID No. EU30), shall not exceed 0.6 pounds per million Btu heat input.

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.5.3 Record Keeping Requirements

To document compliance with Condition D.5.1, the Permittee shall maintain records of fuel usage and calculate emissions using AP 42 emission factors or other emission factors approved by IDEM, OAQ.

D.5.4 Reporting Requirements

A quarterly summary of the information to document compliance with Condition D.5.1 shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

Conclusion

The construction of this wood furniture manufacturing process shall be subject to the conditions of the attached proposed **Minor Source Modification No. 039-13961-00014**.

Appendix A: Emission Calculations

Company Name: HomeCrest Corporation
Address City IN Zip: 1002 Eisenhower Drive North, Goshen, Indiana 46526
CP: 039-13961-00014
Plt ID: 039-00014
Reviewer: Linda Quigley/EVP
Date: March 12, 2001

Uncontrolled Potential Emissions (tons/year)

	Emissions Generating Activity			
Pollutant	Surface Coating	Woodworking Operation	Natural Gas Combustion	**TOTAL**
PM	2,930.08	2,781.17	0.02	5,711.27
PM10	2,930.08	2,781.17	0.10	5,711.35
SO2	0.00	0.00	0.01	0.01
NOx	0.00	0.00	1.31	1.31
VOC	10,137.97	0.00	0.07	10,138.04
CO	0.00	0.00	1.10	1.10
total HAPs	3,428.37	0.00	negl.	3,428.37
worst case single HAP	1,980.24	0.00	negl.	1,980.24

Total emissions based on rated capacity at 8,760 hours/year.

Controlled Potential Emissions (tons/year)

	Emissions Generating Activity			
Pollutant	Surface Coating	Woodworking Operation	Natural Gas Combustion	**TOTAL**
PM	< 250	2.78	0.02	< 250
PM10	< 250	2.78	0.10	< 250
SO2	0.00	0.00	0.01	0.01
NOx	0.00	0.00	1.31	1.31
VOC	< 250	0.00	0.07	< 250
CO	0.00	0.00	1.10	1.10
total HAPs	3,428.37	0.00	negl.	3,428.37
worst case single HAP	1,980.24	0.00	negl.	1,980.24

Total emissions based on rated capacity at 8,760 hours/year, after control.

Appendix A: Emissions Calculations
VOC and Particulate
From Surface Coating Operations

Company Name: HomeCrest Corporation
Address City IN Zip: 1002 Eisenhower Drive North, Goshen, Indiana 46526
CP: 039-13961-00014
Plt ID: 039-00014
Reviewer: Linda Quigley/EVP
Date: March 12, 2001

Material	Density (Lb/Gal)	Weight % Volatile (H20 & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/unit)	Maximum (unit/hour)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential VOC pounds per hour	Potential VOC pounds per day	Potential VOC tons per year	Particulate Potential (ton/yr)	lb VOC/gal solids	Transfer Efficiency
L025013	7.86	54.52%	0.00%	54.52%	0.00%	32.94%	0.05400	2000.000	4.29	4.29	462.81	11107.43	2027.11	**422.75**	13.01	75%
972-50C27-0150	7.58	54.59%	0.00%	54.59%	0.00%	27.99%	0.05400	2000.000	4.14	4.14	446.90	10725.49	1957.40	407.06	14.78	75%
1735C40313	7.80	65.94%	0.00%	65.94%	0.00%	26.51%	0.05400	2000.000	5.14	5.14	555.48	13331.49	2433.00	314.18	19.40	75%
1735C40307	7.71	68.11%	0.00%	68.11%	0.00%	24.72%	0.05400	2000.000	5.25	5.25	**567.14**	**13611.32**	**2484.07**	290.77	21.24	75%
Stains																
L019131	8.43	94.83%	92.80%	2.03%	0.00%	5.17%	0.05400	2000.000	0.17	0.17	18.48	443.57	80.95	51.54	3.31	75%
1311D00382	7.26	98.40%	0.00%	98.40%	0.00%	1.18%	0.05400	2000.000	7.14	7.14	**771.53**	**18516.83**	**3379.32**	13.74	605.41	75%
1310W00101	7.42	77.34%	0.00%	77.34%	0.00%	9.01%	0.05400	2000.000	5.74	5.74	619.77	14874.52	2714.60	198.84	63.69	75%
1310R00072	7.43	74.85%	0.00%	74.85%	0.00%	15.55%	0.05400	2000.000	5.56	5.56	600.63	14415.03	2630.74	220.99	35.76	75%
1331D01852	7.05	98.05%	0.00%	98.05%	0.00%	0.73%	0.05400	2000.000	6.91	6.91	746.55	17917.26	3269.90	16.26	946.92	75%
1310D03274	8.03	70.15%	0.00%	70.15%	0.00%	29.85%	0.05400	2000.000	5.63	5.63	608.37	14600.85	2664.66	283.46	18.87	75%
1310D04308	7.12	88.78%	0.54%	88.24%	0.46%	5.78%	0.05400	2000.000	6.31	6.28	678.53	16284.73	2971.96	94.47	108.70	75%
1704W00052	9.81	57.78%	0.00%	57.78%	0.00%	42.22%	0.05400	2000.000	5.67	5.67	612.17	14692.02	2681.29	**489.81**	13.43	75%
1310D03274	7.98	69.96%	0.00%	69.96%	0.00%	30.04%	0.05400	2000.000	5.58	5.58	602.94	14470.64	2640.89	283.49	18.58	75%
1310D01004	9.16	57.74%	0.00%	57.74%	0.00%	42.26%	0.05400	2000.000	5.29	5.29	571.21	13709.05	2501.90	457.79	12.52	75%
1116R00371	6.80	98.89%	0.20%	98.69%	0.20%	0.67%	0.05400	2000.000	6.72	6.71	724.78	17394.70	3174.53	8.93	1001.63	75%
1310D02376	6.64	93.45%	0.00%	93.45%	0.00%	6.55%	0.05400	2000.000	6.21	6.21	670.15	16083.57	2935.25	51.43	94.73	75%
1310D00937	6.72	94.19%	0.00%	94.19%	0.00%	3.20%	0.05400	2000.000	6.33	6.33	683.59	16406.24	2994.14	46.17	197.80	75%
State Potential Emissions											**1905.81**	**45739.47**	**8347.45**	**1335.30**		

Control Efficiency:		Controlled	Controlled	Controlled	Controlled
VOC	PM	VOC lbs per Hour	VOC lbs per Day	VOC tons per Year	PM tons/yr
0.00%	94.00%	**	**	**	**80.12**

Note: State Potential Emissions = Worst case coating varnish (in bold) multiplied by 2 (for two varnish booths) plus worst case coating stain (in bold) (for one stain booth). Each coating is mutually exclusive.

METHODOLOGY

Pounds of VOC per Gallon Coating less Water = (Density (lb/gal) * Weight % Organics) / (1-Volume % water)
Pounds of VOC per Gallon Coating = (Density (lb/gal) * Weight % Organics)
Potential VOC Pounds per Hour = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr)
Potential VOC Pounds per Day = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (24 hr/day)
Potential VOC Tons per Year = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (8760 hr/yr) * (1 ton/2000 lbs)
Particulate Potential Tons per Year = (units/hour) * (gal/unit) * (lbs/gal) * (1- Weight % Volatiles) * (1-Transfer efficiency) *(8760 hrs/yr) *(1 ton/2000 lbs)
Pounds VOC per Gallon of Solids = (Density (lbs/gal) * Weight % organics) / (Volume % solids)

**** Source will limit source wide VOC emissions to less than 250 tons per year.**

Appendix A: Emission Calculations
HAP Emission Calculations

Company Name: HomeCrest Corporation
Address City IN Zip: 1002 Eisenhower Drive North, Goshen, Indiana 46526
MSM#: 039-13961-00014
Plt ID: 039-00014
Permit Reviewer: Linda Quigley/EVP
Date: March 12, 2001

Material	Density (Lb/Gal)	Gallons of Material (gal/unit)	Maximum (unit/hour)	Weight % Manganese Compounds	Weight % Xylene	Weight % Acetaldehyde	Weight % Styrene	Weight % Acrolein	Weight % Methyl Isobutyl Ketone	Weight % Toluene	Weight % Formaldehyde	Weight % Ethyl Benzene	Manganese Compounds Emissions (ton/yr)	Xylene Emissions (ton/yr)	Acetaldehyde Emissions (ton/yr)	Styrene Emissions (ton/yr)	Acrolein Emissions (ton/yr)	Methyl Isobutyl Ketone Emissions (ton/yr)	Toluene Emissions (ton/yr)	Formaldehyde Emissions (ton/yr)	Ethyl Benzene Emissions (ton/yr)
L025013	7.86	0.0540	2000.00	0.0000%	0.0400%	0.0637%	1.2988%	0.0637%	0.0000%	0.0000%	0.0000%	0.0000%	0.00	1.49	2.37	48.29	2.37	0.00	0.00	0.00	0.00
972-50C27-0150	7.58	0.0540	2000.00	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	1.0000%	0.0000%	0.0000%	0.0000%	0.00	0.00	0.00	0.00	0.00	35.86	0.00	0.00	0.00
1735C40313	**7.80**	**0.0540**	**2000.00**	**0.0000%**	**8.0000%**	**0.0000%**	**0.0000%**	**0.0000%**	**0.0000%**	**13.0000%**	**0.0000%**	**1.5000%**	**0.00**	**295.18**	**0.00**	**0.00**	**0.00**	**0.00**	**479.66**	**0.00**	**55.35**
1735C40307	7.71	0.0540	2000.00	0.0000%	8.0000%	0.0000%	0.0000%	0.0000%	0.0000%	13.0000%	0.0000%	0.0000%	0.00	291.77	0.00	0.00	0.00	0.00	474.13	0.00	0.00
Stains																					
L019131	8.43	0.0540	2000.00	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1311D00382	7.26	0.0540	2000.00	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	1.5000%	0.0000%	0.0000%	0.00	0.00	0.00	0.00	0.00	0.00	51.51	0.00	0.00
1310W00101	7.42	0.0540	2000.00	0.0000%	8.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	1.0000%	0.00	280.80	0.00	0.00	0.00	0.00	0.00	0.00	35.10
1310R00072	7.43	0.0540	2000.00	0.0000%	8.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	4.0000%	0.00	281.17	0.00	0.00	0.00	0.00	0.00	0.00	140.59
1331D01852	7.05	0.0540	2000.00	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	1.0000%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	33.35
1310D03274	8.03	0.0540	2000.00	0.0000%	4.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.00	151.94	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1310D04308	7.12	0.0540	2000.00	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1704W00052	**9.81**	**0.0540**	**2000.00**	**0.0000%**	**6.0000%**	**0.0000%**	**0.0000%**	**0.0000%**	**9.0000%**	**22.0000%**	**0.0990%**	**1.0000%**	**0.00**	**278.43**	**0.00**	**0.00**	**0.00**	**417.65**	**1020.91**	**4.59**	**46.41**
1310D03274	7.98	0.0540	2000.00	0.0000%	4.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.00	150.99	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1310D01004	9.16	0.0540	2000.00	2.0000%	17.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	4.0000%	86.66	0.00	0.00	0.00	0.00	0.00	0.00	0.00	173.32
1116R00371	6.80	0.0540	2000.00	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1310D02376	6.64	0.0540	2000.00	0.0000%	3.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.00	94.23	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1310D00937	6.72	0.0540	2000.00	0.0000%	2.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.00	63.58	0.00	0.00	0.00	0.00	0.00	0.00	0.00
State Potential Emissions													**0.00**	**868.79**	**0.00**	**0.00**	**0.00**	**417.65**	**1980.24**	**4.59**	**157.10**

Note: State Potential Emissions = worst case coating varnish (in bold) multiplied by 2 (for two varnish booths) plus worst case coating stain (in bold) (for one stain booth).
Each coating is mutually exclusive.

METHODOLOGY

HAPS emission rate (tons/yr) = Density (lb/gal) * Gal of Material (gal/unit) * Maximum (unit/hr) * Weight % HAP * 8760 hrs/yr * 1 ton/2000 lbs
NESHAP 40 CFR 63, Subpart JJ - The source has demonstrated compliance with Subpart JJ by submitting Certified Product Data Sheet Reports for each coating used.
Each stain, sealer and topcoat has a VHAP content of no more than 1.0 lb VHAP/lb solids, as applied.

Appendix A: Process Particulate Emissions

Company Name: HomeCrest Corporation
Address City IN Zip: 1002 Eisenhower Drive North, Goshen, Indiana 46526
CP: 039-13961-00014
Plt ID: 039-00014
Reviewer: Linda Quigley/EVP
Date: March 12, 2001

State Potential Emissions (tons/year)

A. Baghouses

Process	No. of Units	Grain Loading per Actual Cubic Foot of Outlet Air	Air to Cloth Ratio Air Flow (acfm/ft²)	Total Filter Area (ft²)	Control Efficiency	Total (tons/yr)
EU15 and EU16	2	0.01000	0.8	1,618	99.90%	971.91
EU26	1	0.01000	0.8	6,024	99.90%	1809.27

Total Emissions Based on Rated Capacity at 8,760 Hours/Year **2781.17**

Federal Potential Emissions (tons/year)

A. Baghouses

Process	No. of Units	Grain Loading per Actual Cubic Foot of Outlet Air	Air to Cloth Ratio Air Flow (acfm/ft²)	Total Filter Area (ft²)	Control Efficiency	Total (tons/yr)
EU15 and EU16	2	0.01000	0.8	1,618	99.90%	0.97
EU26	1	0.01000	0.8	6,024	99.90%	1.81

Total Emissions Based on Rated Capacity at 8,760 Hours/Year and source controls **2.78**

Methodology:

State Potential (uncontrolled):

Baghouse (tons/yr) = No. Units * Loading (grains/acf) * Air/Cloth Ratio (acfm/ft²) * Filter Area (ft²) * 1 lb/7,000 grains * 60 min/hr * 8760 hr/yr * 1 ton/2,000 lbs * 1/(1-Control Efficiency)

ESP (tons/yr) = No. Units * Loading (grains/acf) * Face Velocity (ft/sec) * Surface Area (ft²) * 1 lb/7,000 grains * 60 sec/min * 60 min/hr * 8760 hr/yr * 1 ton/2,000 lbs * 1/(1-Control Efficiency)

Scrubber (tons/yr) = No. Units * Loading (grains/acf) * Flow Rate (gpm) * 1/Liquid ro Air Ratio (gpm/1,000 acfm) * 1 lb/7,000 grains * 60 min/hr * 8760 hr/yr * 1 ton/2,000 lbs * 1/(1-Control Efficiency)

Federal Potential (controlled):

Baghouse (tons/yr) = No. Units * Loading (grains/acf) * Air/Cloth Ratio (acfm/ft²) * Filter Area (ft²) * 1 lb/7,000 grains * 60 min/hr * 8760 hr/yr * 1 ton/2,000 lbs * 1/(1-Control Efficiency)

ESP (tons/yr) = No. Units * Loading (grains/acf) * Face Velocity (ft/sec) * Surface Area (ft²) * 1 lb/7,000 grains * 60 sec/min * 60 min/hr * 8760 hr/yr * 1 ton/2,000 lbs * 1/(1-Control Efficiency)

Scrubber (tons/yr) = No. Units * Loading (grains/acf) * Flow Rate (gpm) * 1/Liquid ro Air Ratio (gpm/1,000 acfm) * 1 lb/7,000 grains * 60 min/hr * 8760 hr/yr * 1 ton/2,000 lbs * 1/(1-Control Efficiency)

Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100
Small Industrial Boiler

Company Name: HomeCrest Corporation
Address City IN Zip: 1002 Eisenhower Drive North, Goshen, Indiana 46526
CP: 039-13961-00014
Plt ID: 039-00014
Reviewer: Linda Quigley/EVP
Date: March 12, 2001

Heat Input Capacity MMBtu/hr	Potential Throughput MMCF/yr
3.0	26.3

	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	1.9	7.6	0.6	100.0 **see below	5.5	84.0
Potential Emission in tons/yr	0.02	0.10	0.01	1.31	0.07	1.10

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.
**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

Methodology

All emission factors are based on normal firing.
MMBtu = 1,000,000 Btu
MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu
Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 3/98)
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

See page 6 for HAPs emissions calculations.

Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100
Small Industrial Boiler
HAPs Emissions

Company Name: HomeCrest Corporation
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HAPs - Organics

	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene
Emission Factor in lb/MMcf	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03
Potential Emission in tons/yr	2.759E-05	1.577E-05	9.855E-04	2.365E-02	4.468E-05

HAPs - Metals

	Lead	Cadmium	Chromium	Manganese	Nickel
Emission Factor in lb/MMcf	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03
Potential Emission in tons/yr	6.570E-06	1.445E-05	1.840E-05	4.993E-06	2.759E-05

Methodology is the same as page 5.

The five highest organic and metal HAPs emission factors are provided above.
Additional HAPs emission factors are available in AP-42, Chapter 1.4.